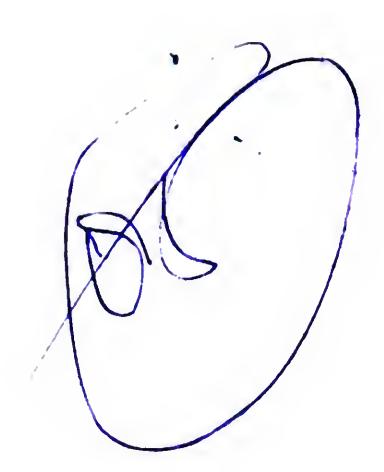
TO THE READER

KINDLY use this book very carefully. If the book is disfigured or marked or written on while in your possession the book will have to be replaced by a new copy or paid for. In case the book be a volume of set of which single volumes are not available the price of the whole set will, be realized.

SINGH CO	
	, reg
Library A	П
Class No EM	•••••
Book No	••••••
Acc. No	• • • • • •



.

LIVING NAMES

SIX MEN OF BUSINESS

ROTHSCHILD
REUTER
RHODES
CADBURY
CARNEGIE
ROCKEFELLER

XFORD UNIVERSITY PRESS



LIVING NAMES

ananananananananananan

SIX MEN OF BUSINESS

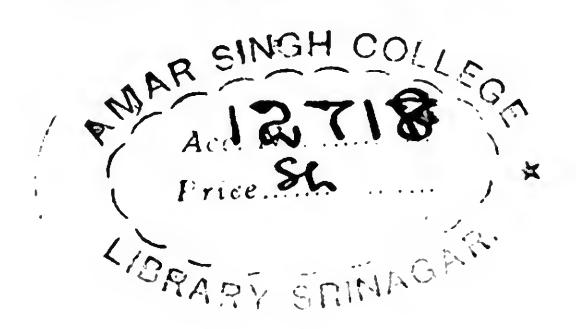
ROTHSCHILD
REUTER
RHODES
CADBURY
CARNEGIE
ROCKEFELLER

By HARRY McNICOL

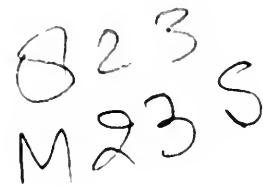
LONDON

OXFORD UNIVERSITY PRESS

Oxford University Press, Amen House, London E.C.4 GLASGOW NEW YORK TORONTO MELBOURNE WELLINGTON BOMBAY CALCUTTA MADRAS KARACHI KUALA LUMPUR CAPE TOWN IBADAN NAIROBI ACCRA



First published 1944 Fifth impression 1959



								Page
Meyer Amschel Rothschild			• • •	• • •	• • •	•••	•••	3
Paul Julius Reuter	• • •	• • •	•••	•••	•••	• • •	•••	15
Cecil Rhodes	• • •	•••	• • •	• • •	• • •	• • •	•••	25
George Cadbury	•••	• • •	• • •	•••	• • •	• • •	• • •	36
Andrew Carnegie	•••	• • •	• • •	•••	• • •	• • •	• • •	48
John D. Rockefeller	• • •	•••	• • •	• • •	• • •	•••	• • •	61

PRINTED IN GREAT BRITAIN BY
MCCORQUODALE & CO. LTD., NEWTON-LE-WILLOWS

MEYER AMSCHEL ROTHSCHILD

Ì

On the Maine, a tributary of the great German river Rhine, stands the ancient city of Frankfort. Two hundred years ago, when Meyer Amschel Rothschild was born, it was a wealthy merchant city; for, being near the Rhine and almost on the borders of France and Holland, a great deal of Germany's trade with these countries and with England passed through its warehouses.

In the Middle Ages the Christian Church had said that it was wrong for Christians to lend money; but the Jews did not see any harm in it. People who wished to borrow money therefore went to the Jews. Those who borrow money are sometimes slow in paying it back; and so people who lend money are tempted to charge high interest for the loan. The Jews, therefore, became very unpopular.

In the Jewish quarter of Frankfort lived five hundred Jewish families, their houses tall and narrow, for no Jews were allowed to live outside this single street. The doors were not numbered, but over each was a shield or a sign of some sort. In one of these houses lived a family which had been called Elchanan, but, since their sign was a small

red shield, people had come to call them Rothschild, or Red Shield.

П

When our story begins, the Rothschild family no longer lived in the house with the red shield; for, as shopkeepers and money changers, they had made money and bought a larger dwelling. Meyer Amschel Rothschild was born in 1743, and by the time he was ten years old his father had taught him a good deal about business and the exchange of money.

In those days there were hundreds of different States in Germany, each with its own coinage, and when travellers were going from one State to another, they had to have their money changed, just as an English traveller changes his pound notes for dollar bills when he goes to the United States of America. Money changers perform this service for

a small fee.

Meyer Amschel became interested in the money that passed through his hands, especially as some of it was very old. He began to collect uncommon coins. When he left school—he could not have been there very long, for he was not a good scholar—he was apprenticed to a merchant in Hanover. There he met a certain General von Estorff, a nobleman who was an enthusiastic coin-collector.

Meyer Amschel's father died and, when the son's apprenticeship was over, Meyer Amschel returned

to Frankfort to carry on the family business. All his spare time was spent with his collection, and

soon he became an expert in coin-collecting.

Each spring a famous fair was held at Frankfort, and all the latest goods and novelties of the world were to be seen there. To the fair came people from many countries. In 1763 one of the distinguished visitors was William, the young Count of Hanau, Crown Prince of the German state of Hesse-Cassel.

Naturally Meyer Amschel, now a young man of twenty, took a great interest in the fair and in the wealthy people who came to Frankfort, for he hoped that they would come to him to have their foreign money changed. One day, during the fair, when he was passing along a crowded street with a friend, his companion touched his arm and said:

'Friend Rothschild, do you see that young man coming towards us? That is Prince William of Hanau, the son and heir of the Landgrave of

Hesse-Cassel.'

'So that is William von Hesse! It is said that he would have made a better merchant than prince. Merchants from Hanau have told me that he is as keen as you or I to make a profitable bargain.'

'It is said, also, that he has no ill-feeling towards people of our faith . . . But what has come over you, Rothschild? Why do you stare at the Prince

and his friend?'

^{&#}x27;Forgive me. His companion is General von

Estorff, whom I know. I'll leave you, for I must

try to bring myself to his notice.'

Thus Meyer Amschel left his friend and hurried after the two gentlemen. Keeping them in sight, he followed them, deep in thought, until they entered a hotel.

'I see the Count of Hanau and his friend are

lodging here,' he remarked to the door-keeper.

The man spat and replied roughly: 'What would a man like you want with him? Get out before I...'

'Softly, my friend, softly! Perhaps this will improve your manners.' The Jew pressed money into the man's hand.

'Yes, they are staying here,' the door-keeper

replied, still reluctantly, but more politely.

Rothschild scribbled on a piece of paper. 'Please take this note to General von Estorff,' he requested. The man looked doubtful, but another coin decided him, and he disappeared into the building. Five minutes later he reappeared.

'His Excellency the General will see you this

evening,' he told the young Jew.

Ш

Meyer Amschel spent the rest of the afternoon arranging an attractive collection of old coins and medals for the General's inspection, and before evening he was at the hotel.

'You are the young Jewish apprentice, who sold

me some coins in Hanover some years ago. I remember you,' the General remarked when Rothschild was taken to his room.

'Your Gracious Excellency was pleased to honour me then. When I saw your Excellency to-day in the street, I took the liberty of discovering where you lodged, and now risk your Excellency's displeasure by calling to assure you that I am still your Excellency's humble servant.'

'Less of your Excellencies, young man! I consented to see you because you said you had some coins to show me.'

'Indeed, I have here a choice selection, most honourable sir.' The young Jew laid out the coins he had brought, and soon, in the pleasure of their hobby, the General had forgotten the difference between himself and the Jew.

Having bought most of the coins, the General dismissed the Jew, informing him that Prince William also was a keen collector, and that he would mention Rothschild's name to His Highness.

Meyer Amschel thanked him and promised to bring more coins for the Prince to look at next day. Then he returned home feeling very pleased with himself, for his chief reason for seeing the General had been to get in touch with this Prince, who had such a reputation for business dealings.

Next day Meyer Amschel again visited the hotel, taking with him, not only the rarest coins, but also jewels and curios, all of which he priced below their real value, so that the Prince would not only buy

them, but remember him and deal with him again. To Meyer's disappointment, William was not able to see him, but one of the servants took the packet of trinkets and promised to lay it before his master.

A day or so later Rothschild received a note from General Estorff enclosing payment for the Prince's

purchases.

For the next five years Rothschild had many transactions with the Prince, sometimes in person. William, who had no ill-feeling towards Jews, came to like the tall, dignified young man, who was always so punctual and honest in his dealings.

But Meyer Amschel was not satisfied with only selling coins to the Prince. Already he was becoming quite well known in Frankfort as a money changer, merchant and banker. He realized that, sooner or later, William would become very rich and distinguished as Landgrave of Hesse-Cassel. Meyer hoped that he would be able to do much bigger business with him then.

In 1769 Rothschild wrote to Prince William asking for permission to call himself Crown Agent of Hanau, for this would show other wealthy people that Rothschild was trusted, and so they, too, would deal with him. To Rothschild's delight the Prince

agreed.

IV

In 1785 the old Landgrave of Hesse-Cassel died, and William became ruler of that important State.

He was now one of the richest men in Europe; but he was not satisfied with his great wealth and wished to increase it. His father had obtained large sums of money by training regiments of soldiers and selling them to England to fight her wars, and the young Landgrave continued this practice. To pay for these troops England had to send large sums of money to the Landgrave. In those days it was troublesome to send gold for long distances, owing to the dangers of travel. Bankers had ways of transferring money without this risk, and of course, they charged for doing so. This was the business Meyer Amschel wished to carry out for William, and after years of patient waiting he was thus employed. What did William do with all his money? He did not leave it lying in his treasury, but lent it to other countries, which paid him interest on the loans. Rothschild also carried out this kind of business for the young Landgrave, and received good payment.

Rothschild was now rich, and he, his five sons and five daughters and their mother, moved into one of the best houses in the Jewish quarter. The five sons were taught the business as soon as they were old enough, and the daughters also had a business training, which was unusual in those days.

One day trouble came to Hesse-Cassel. Napoleon, the great leader of the French, who had defeated every state in Europe that stood in his way, was about to attack it. William was in a panic, for he feared that he might be made prisoner and, what

seemed even worse, that the French might find and take away his vast fortune. But Rothschild came to the rescue. The valuables were packed into chests and put away in places of safety—one of them in the cellar under Meyer Amschel's house. William fled to Denmark.

During the years that followed, Meyer Amschel and his sons looked after the Landgrave's affairs well, for they managed to persuade the French that they were on the French side, and so continued to live at Frankfort. On one occasion the French suspected that they were in touch with the Landgrave, and an order was issued to search their house. But the chest was hidden, just in time, in a secret room. Meyer Amschel, who was now an old man, pretended to be sick and unable to answer questions, and the police went away no wiser than when they had come.

All this time Rothschild was working for better conditions for the Frankfort Jews. So important had he become that he was able to do so success-

fully.

With great cleverness the Rothschilds carried on their banking business, not only for the Landgrave, but for the French as well. When Meyer Amschel

died in 1812 he left his sons a huge fortune.

Three years later Napoleon was defeated and sent to the island of St. Helena, and the states of Europe set to work to repair the damage of the long war. Large sums of money were lent by the countries to each other, and a good many of them passed through

the hands of the five Rothschilds, whose banking house was now the greatest in the world. So well did the Rothschilds serve the Emperor of Austria that he gave each of them the title of Baron and a coat of arms.

Of the five brothers the cleverest was Nathan, who, by this time, had settled in England, where he was looked on as one of the wealthiest bankers. So trusted was he that the ministers of state often asked his advice on important money matters.

When Nathan first came to England he became a merchant in Manchester; but very soon he was rich enough to become a banker. His offices were in New Court in London. There money could be borrowed to start new businesses or to help governments to carry out their policies. In fact, during the nineteenth century there was scarcely a big business transaction in which the Rothschilds were not interested.

During the Peninsular War the great British General Wellington had been fighting the French in Spain, and it was necessary to send him large sums of money to pay his troops. Owing to the French blockade it was dangerous to send this money by sea, and so the Government consulted Nathan Rothschild, who promised to let the General have the money without loss. By making arrangements with his brother James, who looked after the Rothschild business in Paris, Nathan transferred

the money to Spain right through the enemy's country, without the French knowing anything about it.

Nathan had four sons, who all entered the business; but when their father died in 1836, Lionel, the eldest, became the head of the House of Rothschild.

In those days Jews were not allowed to sit in the British Parliament, and for years Lionel worked to win for them the same rights as other Englishmen. At last he, and therefore other Jews, were allowed to be elected to the House of Commons.

VI

When the Rothschild family first settled in England, people looked on them with suspicion, because they were foreigners and Jews. Nathan spoke with a foreign accent, but his sons and grandsons were brought up in England and were, in fact, Englishmen. When the Rothschilds became the richest people in the country, it was considered an honour to be invited to their magnificent parties at their mansions in the Vale of Aylesbury. The Prince of Wales was an intimate friend of Nathaniel, one of Lionel's sons, and the great statesmen of the day were constant visitors.

Everyone has heard how a ruler of Egypt, the Khedive, employed the French engineer, de Lesseps, to build the Suez Canal. This undertaking was so costly that other countries were invited to share in the expense. When the canal was opened, the

Khedive owned about half the shares in it. This was more than any other single country held. But the Khedive had expensive ways, and in 1875 he had so little money that he decided to sell his shares in the Canal, so as to fill his treasury.

One Sunday evening in that year the Prime Minister, Disraeli, was dining with Baron Lionel. A servant entered with a telegram and handed it to Rothschild.

'Excuse me while I read this,' the Baron said to his guest as he tore open the envelope. After glancing through the message, 'Listen to this!' he exclaimed, 'it's from our Paris house: "French Government in touch with Khedive about purchase of Canal Shares. Unable to reach agreement about price."'

Disraeli considered for a moment; then: 'How much does the Khedive want for them?' he asked.

'I'll find out.' Lionel left the room to telegraph to Paris.

Before they had finished the meal, the answer came—£4,000,000.

'Very well, we'll have them,' said Disraeli.

During the next week Disraeli opened negotiations with the Khedive, in utmost secrecy, of course, for if Russia or France had heard about the proposed deal, they would immediately have offered the Khedive more money. It would have been obvious that, if Britain wanted the shares, they were worth buying. But the question was: where was the £4,000,000 to come from? Parliament was not sitting at the time, and the Bank of England could not forward the money without Parliament's consent. To recall Parliament would have drawn all the world's attention to the deal. So Disraeli turned to the Rothschilds, who produced the huge sum immediately.

Thus Britain came to control the great canal that gives a short cut to India. Without it the Allies in the Second World War might never have succeeded in driving the Germans and Italians from North Africa.

Baron Lionel died in 1879, leaving three sons. Nathaniel, who later became the first Lord Rothschild, was head of the banking firm; Alfred loved books, art and music; Leopold was happiest with his race-horses. All three did good works with their vast fortunes, particularly among the

Jewish community.

The First World War brought the end of the greatness of the House of Rothschild, for heavy taxes were imposed on the incomes of the rich, and death duties took a great proportion of the money they left. The three famous brothers died during the war, mourned by the whole country, and with their deaths we must end the story of this great and interesting family. They were always proud of being Jews. By their honesty and generosity they deepened respect for the men and women of their race.

PAUL JULIUS REUTER*

Have you ever wondered how it comes about that in the newspapers or on the radio we hear so quickly about events that have occurred in distant parts? By wireless it is possible to send a message round the world in a fraction of a second, so why should we not be told by the news-reader what has happened only an hour ago, say, in Moscow? It is not so simple as it sounds. How is the news sent to the newspaper offices all over the country and to the B.B.C., so that it can be served 'hot' (as the newspaper men say) at our breakfast tables and from our loud-speakers? If there is a colliery disaster in Wales, or a typhoon in the China Sea, or an important speech by the Prime Minister of New Zealand, almost everyone in the civilized world hears about it in a matter of hours. Unless it was the business of certain people to distribute news while still 'hot', it would take much longer to get to us.

If you look at a newspaper you will see that most of the items of news indicate where they come from. At the head of some of them is printed: 'From our own correspondent.' This means that the newspaper has a man or woman belonging to its staff 'covering' certain happenings, and sending in 'exclusive' reports to the newspaper office. Messages 'from our own correspondent' are

^{*} Most of the material for this biography was kindly provided by Reuters Ltd.

usually concerned with important happenings which were foreseen, so that correspondents could be sent to cover them. Or they are from some important city, where the newspapers consider it worth while to employ a reporter or correspondent permanently.

At the end of other news 'stories' there may be printed 'British United Press' (or just 'B.U.P.'), or 'Associated Press', or, most commonly, the word 'Reuter'. These are news agencies. News agencies are firms whose business is to collect news and sell it to newspapers and radio systems all over the world. Even the greatest newspapers and broadcasting systems cannot afford to have correspondents everywhere, so it is obvious that the news agencies are very useful to them. It is with the greatest of these agencies, Reuters (pronounced Roy-ters), that we are concerned.

In the old days news travelled very slowly, about as fast as a horse could gallop. There were quicker ways of sending messages: for example the Romans built signal stations along the East Coast of Britain, so that they could send signals by smoke and fire if the barbarians approached the coast in their ships. The same plan was used over a thousand years later, when Philip of Spain's Armada was expected; and again when Napoleon had designs on England. But this was making signals, rather than sending news.

As man became busier and time more precious, some method of sending messages quickly had to be discovered. The semaphore was invented, and

towers with movable arms were erected across the country, just within sight of each other, so that messages could be passed on from station to station. This was the first telegraph, the quickest way of sending messages before the coming of electricity. Most news was sent by post. That is, relays of horses were provided along the route, and a coach or a post-boy carried the news and the mail, picking up fresh horses when the old ones were tired.

Another method of sending news was by pigeon. The carrier pigeon, like the cat, is extremely attached to its home, and if a traveller wanted to send a message back to his starting point, he fixed it to a pigeon which he had taken with him. The bird, once set free, flew straight back to its loft, and the message could then be taken from its leg.

The invention of the electric telegraph and the Morse Code, and, later, of wireless, speeded up the sending of news. But before news could be sent it had to be collected. Paul Julius Reuter did more than any other man to organize the collection and distribution of news.

Reuter was born in 1816 of Jewish parents in the German city of Cassel. His father died when he was thirteen, and he had to find work in his uncle's bank at Göttingen. The professor of astronomy at the University of that city was the famous mathematician and physicist Gauss, who at this time was carrying out experiments with the

electric telegraph. Young Reuter made the acquaintance of this scientist and became interested in telegraphy.

In 1845 Reuter married the daughter of a banker. Two years later, with borrowed money, he became a partner in a firm of booksellers. But selling books was not exciting enough for this young man.

Bankers and financiers, who trade in money, attach a great deal of importance to hearing news before other people. By doing this, they get opportunities of doing business and making large sums of money. For example, thirty years before, the Rothschilds had made a great sum of money because they employed a special messenger, who brought them news of the fall of Napoleon before anyone else heard about it.

Reuter knew all this, having been trained in a bank, and the idea came to him that, if he could provide advance news, business men would be only too glad to pay him for it. In 1849, therefore, he sold his interest in the bookshop and took a small office at Aix-la-Chapelle (now Aachen). Then he went to a local bird fancier and bought twenty pairs

of carrier pigeons.

Reuter now took a friend into his confidence. This man was a stockbroker who worked at the Brussels stock exchange and could therefore provide the news which business men in Aix required. Each day Reuter put on the Brussels mail-coach a cage containing a pair of pigeons, addressed to his friend. When the birds were delivered to him,

the friend set them free after fastening to their legs silk bags containing the stock prices.

The pigeons arrived home three hours before the mail-coach, and immediately Reuter and his wife made many copies of the messages and delivered them to the business men who paid for the service. Brussels had been connected by telegraph with Paris and Berlin, and the pigeon post was used to connect Aix-la-Chapelle with the system.

At that time England was, as far as business was concerned, the leading country in Europe. She alone had not been laid waste by the armies of Napoleon, and during the long war her allies and even her enemies had bought their munitions and supplies from her. Long before any other state, she had developed her coal mines and had built factories and railways. Now, when the European countries were doing likewise, they turned to her to supply them with money and materials. Thus it was that, in the middle of the last century, London, as the capital of 'the workshop of the world', was the principal business city, not only of Europe, but of the entire world.

When Reuter heard that a telegraph cable had been laid from London to Paris, connecting the British capital with the cities of Europe, he at once realized that in London he would have a wonderful opportunity to distribute the most important business news to the Continent.

In 1851 he sold his property in Aix and went to London, where he and his wife took humble

TO AND AND THE COLLEGE

lodgings and a small office in the Royal Exchange Building, which is the business centre of the City. His aim was to establish himself as an agent for business men on the Continent, sending them by telegraph the latest news of the London Stock Exchange. He engaged as his office boy a smart lad called John Griffiths, who later became a high official in the Reuter Company.

An amusing story shows how difficult for the unknown Jew his first months in London were.

One day, when Reuter was eating his meagre lunch in a cheap restaurant, Griffiths ran in and called him, breathlessly.

'Mr Reuter,' he gasped, 'someone's been to see

you.'

'Yes, yes?' Reuter queried impatiently, 'who was it?'

'A foreign-looking gentleman.'

'A foreigner? Mein Gott! Business at last.' Reuter looked delighted; then his expression changed to one of alarm, and he rose from the table in his anxiety. 'Did you let him go? Did he leave his name? Boy, why didn't you come for me at once?'

'It's all right, sir,' Griffiths grinned; 'he's still at the office. I didn't let him go. I locked him in.'

And that was how the new firm gained a client.

Soon business began to grow, and instead of sending out only London business news, Reuter employed agents to send him reports from the chief European business centres, such as Amsterdam,

Berlin and Vienna. Then he was able to go farther afield still, and he arranged for agents in India and the Far East to send messages by mail to Suez, whence they were sent on to London by the newly laid cable.

So far the news received and distributed by Reuter was of interest only to business men—news of the latest prices of stocks and shares and of other money matters. At that time the sale of newspapers was growing, and the public was becoming more interested in world events. Why, thought Julius Reuter, should his agents in other countries not send him general news? The British newspapers should be glad of this opportunity of getting news of distant happenings without the trouble of collecting it.

He sent instructions to his foreign agents that he wanted general as well as business news, and he visited the editors of the London newspapers to explain his plan. Most of these papers had managed quite well without Reuter, and they intended to continue to do so. Politely, but firmly, they turned him away.

'Very well,' he decided, 'I'll give them a sample of what I've got, and we'll see if they still don't want it.' In 1858, for a whole month, he sent every London newspaper a copy of all his foreign telegrams, leaving them to decide whether they would buy or not. Some did and some did not.

The French Emperor Napoleon III had made a secret promise to help the King of Sardinia to drive

the Austrians out of Italy. In 1859 all the world realized that there was danger of war between France and Austria. A speech which the Emperor was to make to the French Parliament was awaited with great interest. Julius Reuter saw that here was the chance to establish his reputation.

For the time when the speech was to take place he hired the cable connecting Paris to London. Then he arranged with the French authorities to give him a sealed copy of the speech, which he promised not to open until the Emperor should

start speaking.

When Napoleon rose in the French Parliament, a signal was flashed to Reuter, who opened the package. While the speech, which amounted to a declaration of war on Austria, was being delivered in Paris, Reuter was telegraphing it to his subscribers. Thus, for the first time in history, the newspapers had instant news of a distant happening. Of course those newspapers which did not pay for the Reuter news could not let their competitors make 'scoops' like this, so many more of them decided to subscribe to the Reuter service.

When the Franco-Austrian war broke out, Reuter made careful arrangements and sent war correspondents to the French, Sardinian and Austrian camps, so that he was able to offer the newspapers three accounts of the same battle.

In 1861, only ten years after Reuter had come to England, someone wrote that, through the agency of Mr Reuter, the daily papers of the great towns of the North of England and of Ireland printed exactly the same telegrams as the London dailies; the farthest extremities of England were as well posted in the news of the world as the metropolis itself; news from England was conveyed in like manner to all the chief Continental cities; thus the people of St. Petersburg* might read every morning an account of the previous night's debates in the British Houses of Parliament.

In the same year the American Civil War broke out. There was at that time no Atlantic cable, but yet Reuter made his arrangements. His agent in New York was to collect the latest information from both the warring parties and put it on board the weekly steamer for Europe. As the ship neared Ireland, the messages were thrown overboard in a tin container and picked up by a Reuter boat. They were then taken ashore and telegraphed, by a special line to Cork laid by Reuter for the purpose, and then wired to London.

When President Lincoln was assassinated in Washington, Reuter's correspondent in New York chartered a fast steamer and, having overtaken the mail-boat, flung the message on board. It reached London a week earlier than other news of the tragedy.

By this time Reuter's telegrams were given the place of honour in all the newspapers. Reuter, with his usual enterprise, had extended his service by sending agents to all the important British

^{*} Leningrad.

Colonies. Arrangements were made for supplying news to other agencies which had been set up in

Europe.

By 1865 Reuter had become far too large a concern to be managed by one man. Besides, more money than Reuter could supply was required to extend his activities. Shares in the company were sold, other people were brought in as partners, and Julius Reuter became Chairman. He held this position until he retired in 1878, when his son Hubert succeeded him.

When Reuter first came to England, he became a naturalized British subject. In 1871 the Duke of Saxe-Coburg-Gotha honoured him with the title of Baron, and twenty years later he and his two sons were allowed by the British Government to use the title in Britain. Baron Julius de Reuter died in

1899.

Nowadays, in peacetime, there are Reuters' correspondents in all countries. The principal news agencies in every country of the world are connected with Reuters, the greatest of them all, which has first call on their news. When Reuters do not provide news direct to the newspapers, they pass it on to these agencies, who distribute it. Thus the various agencies, by a friendly agreement, help each other.

Before the present war Reuter conducted, from the Rugby and Northolt stations to all the great business centres, the largest wireless telegraphic service of its kind in the world.

All this organization lies behind the little word 'Reuter' which appears so often on the pages of our newspapers.

CECIL RHODES

I

In South Africa, one evening in the year 1867, a Dutch farmer was leaning over his fence watching some boys playing marbles with round stones.

'Come here, lad!' he called to one of the children. 'Let me see that queer, white stone

you've got.'

The boy came to him and put the strange, glassy pebble into the farmer's hand.

You can have it, if you like,' the boy offered.
'I've plenty more—and anyway, that one doesn't

roll straight.'

Why was the farmer interested in that small stone? He remembered reading that diamonds, the most precious of all precious stones, only shine and sparkle after clever workmen have cut and polished them; and that, when found in the ground, they much resemble that pebble.

The farmer showed the stone to some diamond merchants, who told him that it was worthless. But he was not satisfied. He sent it to an expert, who, to his delight, informed him that it really was a diamond and worth £500. When the

Government of the Cape of Good Hope heard of this, they at once bought the diamond and exhibited it as the first diamond ever found in South Africa.

That was only the beginning of this farmer's luck, for soon afterwards he saw a witch-doctor working charms with another of these stones, and this time it was a very large one indeed. He gave the black man everything he possessed in exchange for the diamond—500 sheep, 10 oxen and a horse—and sold it to a merchant for £1,100. The merchant re-sold it for £2,500. This famous diamond is called the Star of South Africa.

You may be sure that very soon people began to flock to Griqualand West, the part of South Africa where the farmer lived, in search of these precious stones. High prices were paid to the Dutch farmers for their land, and one farmer, called de Beers, sold his farm for £6,000. If he had kept it and started digging for diamonds, he would have become a millionaire ten times over. Soon the busy town of Kimberley sprang up round the new diamond mines.

П

Three years after the first diamond had been discovered, a tall, slender young man of eighteen, dressed in dirty white flannels, was to be seen busily digging and riddling a pile of earth. His name was Cecil John Rhodes. He straightened himself to rest his aching back and looked round at the new

town of Kimberley. Everywhere were tents and wooden huts, where the miners ate and drank and danced and slept. There was not a tree, not a bush, not a blade of grass to be seen; but only dust and hard, dry earth and flies.

Below this miner were the diggings of the de Beers mine. It had been a low hill—or kopje, as the South Africans call it—thirty feet high, an eighth of a mile long and one hundred and eighty yards wide; but now much of it had been dug away, and many native Africans, who did the digging, were working below the ground level. The earth was hauled to the surface, where the white men, who owned the claims, sorted it for diamonds. On this small piece of land ten thousand 'claims' or digging plots were marked out. Each one measured only about 35 feet square.

Cecil Rhodes was born at Bishop Stortford in England in 1853. His father was a vicar, and he hoped that Cecil, too, would become a clergyman. But before the boy could enter the university he became ill, and the doctors told him that, unless he left the cold, damp climate of England, he would die.

So Cecil set out for South Africa to join his brother, who was a cotton planter. But farming was not exciting enough for the brothers. Like thousands of others, they set out for Kimberley, where they bought three claims in the de Beers mine.

Cecil now showed that he was not only a student, but a hard worker and a good business man. Every time a miner, disheartened by bad luck, wished to sell his claim, young Rhodes bought it, and before very long he was making £100 a week. All day he toiled, sorting the piles of earth, which were hauled out of the great pit. Most evenings were spent reading the Greek and Latin classics, for what Rhodes wanted more than anything else at that time was to return to England and attend Oxford University.

When Cecil Rhodes was nineteen he and his brother left their diamond mines in charge of a manager and set out in an ox-wagon for the Transvaal to look for gold. On this long journey across the veld—which is the South African name for high grass-lands—he had plenty of time to admire the rich pastures, which would make such wonderful farms. He began to think how splendid it would be if it all belonged to Britain. By the time the two brothers had finished their journey, young Cecil had decided that this rich country must belong to Britain—and he resolved that he was the man who would win it for her.

Rhodes set out for England to take his degree at Oxford and, when he was there, he heard John Ruskin, a famous man of letters, make a speech about the greatness of the English people, encouraging English men and women to do their best to spread the Empire over all the world.

The mind of Cecil Rhodes was now made up. This, thought Cecil Rhodes, was to be his destiny: to make the British people rule all Africa.

Before Rhodes could take his degree he again became ill, and his doctors sent him back to Africa. He arrived there resolved to make himself rich and powerful as quickly as possible, so that he could carry out his great plan.

The British Dominion, the Union of South Africa, is made up of the Cape Province, Natal, the Orange Free State, and the Transvaal. To the north of the Transvaal is a vast tract of land called Rhodesia, after Cecil Rhodes. To the west of the Transvaal is Bechuanaland, and to the west of that again, South West Africa. All these countries are

now included in the British Empire.

In 1815 Great Britain bought the Cape of Good Hope from Holland, thinking that it would be a useful port of call for British ships on their way to India. The white people who lived at the Cape were Dutch farmers, or Boers, as they are called, and they did not at first seem to mind being ruled by England instead of Holland. But soon British people began to settle in South Africa and, to the annoyance of the Boers, to introduce English customs and to interfere with the way the Boers treated their black slaves.

So annoyed with the British did the Boers become, that at last a great many of them set out across the veld in their great, slow ox-wagons and settled in two pieces of country, which they called the Orange Free State and the Transvaal. Before long the British annexed the Transvaal for the better

protection of all the white people in Southern Africa against African tribesmen. The Boers objected to this interference with their freedom, and they rose up and defeated a British force at the battle of Majuba Hill. The Boers in these parts were then allowed to be independent.

By the time this happened in 1880 Cecil Rhodes was a very rich man and well enough known in South Africa to be elected a member of the Cape Parliament.

At this time too the Germans were beginning to settle in South West Africa, and we have seen that the Transvaal belonged to the Boers. Rhodes feared that either the Germans or the Boers might take Bechuanaland and so block the way from the Cape to the rest of Africa, which Rhodes intended should belong to the British.

When some of the Boers from the Transvaal settled in Bechuanaland, Rhodes decided to act. He urged the British Government to take over Bechuanaland, and at once set out to persuade the Boers who lived there to agree to this action.

One of the leaders of the Boers was a great, rough man, called Big Adriaan de la Rey. Big Adriaan was known by everyone to be a very dangerous fellow, who did not think twice about killing an enemy. Rhodes rode straight into Adriaan's camp, taking no notice of his armed followers. When he asked Big Adriaan if he would agree to Britain ruling the country, the huge

Dutchman looked very fierce indeed. 'Blood must flow,' he roared.

'Nonsense,' replied Rhodes with a smile. 'Give me some breakfast. I have had a long ride, and I'm hungry. We can talk about blood afterwards.'

The result was that very soon Big Adriaan and Cecil Rhodes were good friends, and the Boers agreed to live under British rule. Before long Rhodes had made sure that none of Bechuanaland should fall into the hands of either the Germans or the Transvaal Boers.

In 1886 news came to the Cape that gold had been found on the Witwatersrand in the Transvaal, and at once thousands of men rushed there to make their fortunes. Before long the gold-mining city of Johannesburg sprang up round the new mines, just as Kimberley had grown where diamonds were discovered.

But the Transvaal Boers were not at all pleased, for had they not left the Cape and fought a war to get away from these outsiders, or Uitlanders, as they called the intruders? In particular, Kruger, the stern president of the Transvaal Republic, who hated the British, was angry. He swore that, although he could not keep these Uitlanders out of his country, he would make things as difficult for them as possible.

One of the men who bought a gold mine on the Rand' was Cecil Rhodes.

During all this time Rhodes had been making himself richer and more powerful, so that he could carry out his great plan. At Kimberley the diamond miners were digging deeper and deeper, so that the great de Beers mine was covered with shafts, sometimes going down 400 feet through the yellow clay. Often the earth would fall in and a miner would either be killed or become too disheartened to clear it out again; or a great rain storm would come and many of the shafts would be flooded. Rhodes bought up these mines cheaply.

Then at last the miners found that they had dug to the bottom of the yellow soil and had reached a layer of hard blue clay. That, they thought, must mean that there would be no more diamonds. Off they went to Johannesburg to dig for gold instead. But Rhodes knew better. He bought their claims at a low price, and dug far more diamonds out of the blue clay than had ever been found in the yellow.

At last Cecil Rhodes owned all the Kimberley mines, and that meant that he controlled nine-tenths of all the diamond mines in the world.

V

To the north of the Transvaal is the land of the Matabele, which was ruled by an African king, Lobengula. In 1887 Kruger tried to make friends with this chief, and Cecil Rhodes received news that

Lobengula would probably ask the Boers to help him to rule his kingdom. Rhodes was anxious, for he wanted Britain to have Matabeleland.

After much negotiation Lobengula was persuaded in return for a hundred pounds a month, a thousand old rifles, a hundred thousand cartridges, and an armed steamboat, to give Rhodes the sole right to dig for minerals in his kingdom.

Cecil Rhodes went to England and persuaded the government to let him found the great South Africa Company, to open up Matabeleland and Mashonaland, to the north. This meant that Rhodes could ask people to put money into the Company, and that the Company would use the money to dig for gold, raise cattle, employ and trade with the natives, and so on; and that the profits would be divided among the people who had lent the money.

The Europeans began to go north, and roads and telegraphs were made. Lobengula came to realize that with Europeans in his country he and his warriors would be less free to massacre their enemies, the Mashona. But in spite of his angry warriors, the black king kept his word not to molest the pioneers, and the new town of Salisbury was established in Mashonaland.

By this time Rhodes had become Prime Minister of the Cape, and he was supervising the building of his magnificent home, Groote Schuur. He was also planning to build a university for South Africa. But his mind was still full of plans for bringing more and more of Africa into the British Empire.

Eventually he won Matabeleland and Mashonaland for the British Empire. Soon afterwards this huge stretch of country received the name of Rhodesia.

VI

Once the Company had won Matabeleland, they began to search eagerly for the gold which they hoped would be found there. But there was none. What was Rhodes to say to the people who had put their money into his company? He began to think of the country of the Boers, the Transvaal, where the rich gold mines of Johannesburg lie. Kruger ruled the Transvaal and was making life unpleasant for the Uitlanders who had come to his country to dig for gold. There were four times as many Uitlanders as Boers.

Rhodes and his friend Jameson now made a plot to smuggle rifles, field guns and ammunition to Johannesburg and secretly to organize a strong force of Uitlanders, so that, ultimately, a situation might develop in which the Transvaal would again be taken over by the Cape.

The outcome was Jameson's Raid, which was a failure from the beginning; for Kruger got to hear of everything that was happening, surrounded Jameson and his 500 men, and put them in prison.

When Cecil Rhodes in Cape Town heard the news he was broken-hearted. Everyone suspected, rightly, that it was he who had planned the attempt to take the Transvaal. His friends advised him to say what was true, that Dr Jameson had acted beyond his instructions; but Rhodes refused to betray his old friend and took the blame. Everyone turned against him, and he had to give up his offices of Prime Minister and head of the Company.

Certainly Rhodes had acted dishonourably; but there are two things to be said in favour of what he had tried to do. It looked very much as if Germans from South West Africa intended to interfere in the Transvaal, which would have been dangerous for Britain; and Kruger had certainly been acting in a very unfair way to the Uitlanders, who were bringing a great deal of wealth to his country.

VII

For a while Rhodes was in disgrace, and he went north to his own Rhodesia. But soon he had the chance to restore his reputation by doing something very brave.

A great plague broke out among the cattle of the Matabele, and the people were nearly starving. In despair they rose up and attacked the white men. Many people were killed, and it looked as if there would be a long war. But Rhodes went unarmed among the angry Natives and talked calmly to the Chiefs, persuading them to make peace.

Rhodes died two months before the end of the Boer war. If he had lived another seven years he

would have seen a great part of his dream come true, for in 1909 the Cape, Natal, the Orange Free State, and the Transvaal joined together to form the Union of South Africa; and the Boers and the British have been good friends ever since.

What must we think of this great man? He showed brilliant genius as a business man and also as a statesman, but his ambitions led him into errors of judgement which spoilt his fame and clouded his last years. The African Natives loved him, and at his funeral they gave him their royal salute, which had never before been given to a white man. It is still true that Cecil Rhodes did more than any other man to make South Africa civilized and prosperous.

With his vast fortune he built a university, railways, a huge dam, and many other things that have helped South Africa. Since his death a large part of his fortune has provided scholarships to Oxford University for students from the British Empire, the United States of America, and Germany.

GEORGE CADBURY

I

IF you had lived in Edgbaston, which in 1840 was a pretty suburb of Birmingham, you would surely have seen John Cadbury's children. There were six of them—five boys and a girl—and the three

eldest boys, John, Richard, and George, were often riding along the country roads or across the fields on their ponies. Once, to the annoyance of their father, they were reported to him for furious riding.

John Cadbury was a tea and coffee merchant in Birmingham. For some years he had been experimenting with cocoa, which was then becoming a

popular drink.

For over a hundred years the Cadbury family had been members of the Society of Friends, or Quakers as they are often called. The Quakers have a very simple form of church service. They use no Prayer Book and have no paid clergymen. When George Cadbury was a boy, the Quakers lived very strictly. They dressed plainly, thought it wrong to have music at their meetings, and never allowed themselves luxuries.

Mr Cadbury would not have a piano in his house, and not until he was an old man would he sit in an easy chair. In spite of this, the children lived a very happy life. Every morning, before breakfast, they would either walk through the woods and fields with their father and his dogs, or trundle their hoops twenty-one times round the big lawn, which made a mile.

Breakfast was at eight o'clock, and after the meal was over there were prayers and a reading from the Bible. Then there was usually time for the boys to play in the garden on the gymnastic bars and poles—one of them as tall as a ship's mast—before the school bell rang at nine.

Sometimes the children used to go to visit relations on a farm, or to spend a holiday at the tiny seaside village of Blackpool. On Sundays and Wednesday mornings they all went to the Meeting. Every Wednesday Mr Cadbury used to close his warehouse so that his workers could attend.

The two eldest brothers went to boardingschools; but, to his delight, for he was very fond of home, George was sent to a Quaker day-school near-by. The master was a strict man, and would stand no nonsense from the boys; but they must have thought him a good sport, for every week they used to arm themselves with sticks and go into a field. Half of them, assisted by the schoolmaster, would defend a gate, while the others tried to capture it. These young Quakers were not quite so peace-loving as good Friends are supposed to be! When a new boy came to the school, one of the ways of finding how much courage he possessed was to throw him into a thorn bush, to see whether he could bear the pricking without crying out.

George Cadbury's school days did not last very long. When he was fourteen, his father decided that it was time for him to learn a trade. He went into the warehouse to be trained as a merchant.

П

About this time John Cadbury's health began to fail, and his business ceased to prosper. In 1861,

when George was twenty-two and his brother Richard was twenty-five, they were placed in charge of the small cocoa works in Bridge Street, Birmingham.

It seemed almost certain that, before long, the business would have to be given up, because trade was bad. People would not buy their cocoa or chocolate, and the brothers could only afford to pay their twelve workers a few shillings a week. But George resolved that he would not let the business fail. He cut down most of his personal expenses and even stopped taking a daily newspaper for fear of wasting time in reading it. He worked from early morning until late at night, and in a whole

year spent no more than f.50 on himself.

The making of money was not the only aim of the firm of Cadbury. In those days factory workers were badly paid, and they had to work long hours in unhealthy surroundings. One of the chief concerns of Richard and George Cadbury was to alter this state of affairs. They were the first employers in Great Britain to give their workers a half holiday on Saturdays. They saw to it that the little factory was spotlessly clean; they started a cricket club for the workers, and themselves played with them. At Christmas they gave a party for their employees. Each morning, before work started, the brothers collected the men and girls in a large room, and hymns were sung, prayers said, and a portion of the Scriptures read.

The men and women who worked in the Cadbury

factory realized that the brothers wanted to make them happy and contented, and they determined, in return, to do their best to make the business a success.

The first three years were very difficult, and the brothers made no money for themselves. Then business began to improve. So far they had manufactured cocoa of poor quality with treacle, potato-starch and sago flour mixed with it. From then George Cadbury decided to make only the best. He went to Holland and bought an expensive machine for making fine cocoa. Then came a worrying period of waiting. Would people buy this cocoa? Soon Cadbury discovered that there was no need for anxiety. The years passed and the firm became more and more prosperous. In time the name Cadbury on a cocoa-tin was considered a guarantee of good quality.

As soon as the business began to prosper, the

wages of the workers were raised.

TIT

When factories were first built in this country they were set up in towns so that the people who lived there could work in them. As the factories grew in size and employed more men and women, houses had to be built, so that the workers, who at first came to the towns from elsewhere, could live near their work. Builders, anxious to make fortunes out of the needs of the factory workers, built the houses. This might have been done

satisfactorily, for there had to be new houses for the new workers. But the houses were put up as cheaply as possible, and so close together that there was only a narrow street, or a tiny back-yard, between the rows. One cause of cheap housebuilding was the high price charged for the building sites by the owners of the land, who also wanted to make their fortunes.

Then the builders, who owned the houses, charged high rents and seldom did anything to keep the houses in good repair. Thus around the factories grew up terrible slums, where people lived

in dirt and poverty.

Yet one more type of business man to take advantage of this state of affairs was the man who made his living by selling intoxicating liquor. The people who lived in the slums could not read; they were far from the country; there were neither cinemas nor wireless sets. The result was that they spent their evenings in the public-houses, where they tried to forget their miseries by getting drunk.

George and Richard Cadbury were horrified by the unhappiness of the people who lived in the slums of Birmingham, for they thought differently from the other business men just mentioned. They made a great deal of money; but they did not spend it on themselves. They used it for the good of

other people.

When the firm of Cadbury Brothers grew more prosperous, and more people began to ask for their cocoa and chocolate, the little factory in Bridge Street

was no longer large enough to hold the new machinery and the hundreds of workers who must now be employed. What was to be done? Should they buy neighbouring buildings and add them to the factory? If they were to do this the new workers would crowd into small houses near the factory, and the slums would be worse than ever.

George Cadbury believed that all men should have the chance of living in the country and should have gardens, where they could spend pleasant evenings. So he came to a bold decision: he would not add to his present factory, but would build a new one in the country.

The place chosen for the new factory was four miles from Birmingham, near the villages of Stirchley, Selly Oak and King's Norton. There was a trout stream near-by, called the Bourn, and from this stream the works and the village, which was built later, got their name—Bournville.

When the three hundred workers moved to the new factory in 1879, they found that it was a great improvement on Bridge Street. There were playing fields, including cricket and football grounds, and an open-air swimming pool. Inside the factory were dining-rooms and a well-equipped kitchen. What a change it was, while at work, to look out of the windows and see the meadows and woods and the clear bright sunshine, instead of the ugly buildings and smoke of Birmingham !

Many people in the city sneered at the Cadburys for what they considered to be their foolish scheme.

Whoever heard of building a factory in the country? they asked. How were the workpeople to get to their work in time? How were the raw cocoa and the coal to be transported? George Cadbury made arrangements with the railway company, whose line ran through Bournville. Cheap workmen's tickets were issued, and the cocoa and coal were transported with little trouble.

Two years after the new factory was opened, George Cadbury bought himself a large house called Woodbrooke, a mile from Bournville.

He also bought the land around Bournville and had houses built for his workpeople. How different they were from the slum houses! They were not built in dreary rows, back to back, but were laid out, each with its little garden and orchard, in a manner pleasing to the eye. Trees were planted along the roads, and fine schools were set up. These houses were either sold at the price they had cost to build, or were let at a fair rent. Thus Cadbury did not make a penny on the Garden Village of Bournville. And others besides Bournville workers could live in the houses. When this beautiful village was complete, Cadbury gave it as a present to England. Any profit that is made from the rent of the houses must be used in improving the village.

The fame of the village of Bournville spread, not only over Britain, but through the world. People from foreign countries, who also hated slums, came to see George Cadbury to ask his

advice about setting up garden suburbs near their own cities. As a result of Cadbury's example, almost all cities now have their garden suburbs, where a great many town workers can live in the country. Of course the development of the bicycle, the tram and the bus did much to make this possible.

IV

Let us now see how this wonderful factory, which grew larger and larger every year, was managed. Unlike most factory owners of that time, Cadbury regarded his workers, not as machines, but as men and women. His chief aim was not to make money, so that he and his sons should be rich. He did not wish to make his workers happy in their jobs just because he knew that they would earn him more money if they were contented. He realized that, in God's sight, the ordinary worker is just as important as the great factory owner, and he wanted everyone in England to realize it, too.

Most factory owners in those days paid their workers as little as possible, and refused to spend their money on making the factories healthy, safe and pleasant to work in. Cadbury hoped, by showing how a factory could be run, to convince other factory owners that they could make their works like Bournville and still show a good profit.

As the workers became more and more numerous, it was no longer possible for George and his brother

to know them all by name. But the brothers were always moving among their employees, and if anyone had a grievance he could always go to them and be sure of their patient, kindly attention.

Cadbury realized that good health was very important, if the workers were to be happy, and to work well. He therefore employed a dentist, and all boys or girls who entered the firm had to bring a form signed by their parents allowing the firm to look after the youngsters' teeth. Doctors also were employed. If a worker was working badly, he was examined by the doctor, and it was usually found that he was in bad health, or had been going to bed too late, or that he was worried about something.

George Cadbury noticed that, in the winter, many of the girls got their feet wet while going to work. After this, at the beginning of the winter, he gave each girl a pair of overshoes.

In the days before Old Age Pensions, when a person became too old to work he had to go to the workhouse if his relations could not afford to keep him; but not the Cadbury workers. Each had to save something out of his week's wages, and the firm added to this the same amount, so that, when the worker was sixty years old and stopped work, he received a pension sufficient to live on for the rest of his life.

These were only some of the things that George and Richard Cadbury, assisted by their sons, did to make their factory the happiest in the world.

Nowadays many firms treat their workers in this way, following the Cadbury example.

Richard Cadbury died in 1889 while on a holiday

in Palestine.

V

In 1845 Joseph Sturge started in Severn Street, Birmingham, a school where men and women could learn to read and write; for in those days very few poor children went to school. Besides reading and writing the Adult School taught its pupils the Bible.

On account of the miserable conditions among the poor in those days, many young people took to lives of crime and became burglars, pickpockets, or gamblers. The aim of the Adult School was to prevent young men and women from turning to evil ways, and to reclaim those who had already

adopted them.

George Cadbury became a teacher at the Severn Street School when he was twenty. He took Class XIV, consisting of boys. As time passed the class became famous and, during the fifty years that followed, 4,000 men passed through it. Every Sunday morning George Cadbury rose at five-thirty and rode on his horse to the class. Those who attended were men of all types, from respectable workmen to drunkards and housebreakers.

Sometimes Cadbury and his class would set out into the slums and bring in men of the worst kind, who, very often, as a result of attending the class,

gave up their foolish ways. Every Sunday morning Cadbury brought a large box of beautiful flowers to his class, and each of the members chose a bloom and took it home in his button-hole. 'Mr Cadbury's flowers' became famous.

Class XIV did not stay in Severn Street. Branches were started all over the slums of Birmingham, and Cadbury set up recreation rooms at Selly Oak and in various parts of the city, where the men could hold meetings and play games.

VI

When Cadbury bought Woodbrooke, his house near Bournville, he had a huge tent set up, and Birmingham schoolchildren came there when they liked and played in the grounds. Milk, tea, sugar and boiling water were supplied. Later he moved to another house near by and Woodbrooke was made into a college, where people could study and have a holiday at the same time.

Near his new house he built a large hall called 'The Barn', which would hold seven hundred people. There, almost every day in the summer, parties were held for the poor men, women and children of Birmingham. The bigger and noiser the party, the happier was George Cadbury. He would walk among the people and, at the end of the meal which he had provided, he would stand on a chair and say a few words of welcome. Twenty-five thousand people visited 'The Barn' every year.

In Bournville village Mr and Mrs Cadbury built 'The Beeches', which was a rest-home. In the winter, sick officers of the Salvation Army went there for a rest, and in the summer the poorest children of Birmingham were given a happy fortnight there.

Another home near by was 'The Woodlands', where crippled children were looked after. Every Sunday evening George Cadbury would visit the home, to be greeted with shouts of joy from the little people on their crutches or in their beds. Under his arm was always a large box of bars of chocolate, and he would go from bed to bed giving the chocolate and speaking to the patients.

George Cadbury died in 1922 at the age of eighty-three, having spent the whole of his long life, and a great fortune, in doing good to others.

ANDREW CARNEGIE

In the days before the telephone had come into use, urgent messages were sent by telegraph, and they had to be carried on foot from the telegraph office to their destination. This was the duty of messengers. In Pittsburgh, in the early 1850's, the messenger boys were a cheery and useful group of lads. They took a pride in their work and in their smart, green uniforms, for even the police had no

uniforms. The smartest of them all was the little Scottish boy, Andrew Carnegie.

Andrew had lived in the United States only a few years. His father had been a hand-weaver in Dunfermline in Scotland, and it was there, in 1835, that Andrew was born. But the 1840's were hard years for those who worked at the hand-loom: steam factories, which could work many times as fast as men, were springing up and taking the craftsmen's work away from them.

At last Mrs Carnegie had persuaded her husband, much against his will, to sell their few belongings and take passage on an emigrant ship to the United States, where many of their relatives had already settled. In 1848 the family had arrived in the town of Allegheny, in Pennsylvania, across the river from the city of Pittsburgh.

Those first years were full of hardship for the Scots newcomers, but their relatives were kind to them, and Mr Carnegie was able to obtain a handloom and begin weaving coloured table-cloths, which he sold from door to door. But business was little better than in Scotland, and young Andrew, then thirteen years old, had to take a job as bobbin boy in a cotton factory, where he worked from six in the morning until six at night for about five shillings a week.

After a short while Andrew obtained other employment, this time in a bobbin works. All day long he had to stay in a dark and dirty cellar attending to a wheezy steam-engine, stoking the furnace

and seeing that there was sufficient pressure in the boiler. When the bobbins had been made they were sent to him, and he had to dip them into a cauldron of fat, the smell of which always made him feel sick.

When Andrew's uncle Hogan called one evening to tell the boy that he had found him a new job, Andrew was delighted. Uncle Hogan had been playing draughts with a certain Mr Brooks, who was the manager of the local telegraph office. The latter complained that his only messenger was no longer able to deliver the increasing number of telegrams. Hogan suggested that, if Mr Brooks wanted another boy, he knew the very one for him, and he arranged for Andrew to call on Mr Brooks the following day.

There was great excitement in the Carnegie household that night. The next morning Andrew's Sunday suit was brought out and carefully pressed, and he was advised how to address the great man. Later in the day a very clean and self-confident boy, accompanied by a very nervous father, stood at the

door of Mr Brooks's office.

'Now Andy, you will not forget what I told you?'

'No, Father.'

'Shall I come in with you? I will if you're scared.'

'No, Father; wait here. I'll get this job for myself.'

And he did, in spite of being very small and slender for his age.

- 'When can you begin work?' Mr Brooks asked him.
- 'At once,' was the prompt reply; and only some time afterwards did Andrew remember that his father was still impatiently awaiting the result of the interview.

Andy, as everyone called him, made a success of his new job. Before long he knew by heart every address in Pittsburgh. Everyone liked the sharp, cheery little Scotsman, and he became known to many important business men, who were to be of use to him in later life.

As the telegraph business increased, Andy got Mr Brooks to take on other Scottish boys who lived near him and were his particular friends. Imagine their joy when the superintendent of the telegraph company, also a Scot, called at the office, and, having complimented them, took the boys to the tailor and ordered them fine green uniforms.

Carnegie was not to remain a messenger for long. The clicking telegraph instrument interested him, and he used to come to work early in the morning to practise using it. In those days the receiving instrument printed dots and dashes on a long ribbon of paper, from which they were slowly decoded later. One morning, when Andrew was alone in the office, an urgent message came through. Greatly daring, the boy took it from the machine and delivered it. Mr Brooks was delighted, and, before long, the boy was given a place in the office.

To the astonishment of the operators, the sixteenyear-old boy was soon able to write down the messages by listening to the sounds. Although this soon became the general way of taking telegraph messages, it is said that at that time there were only two operators in America, apart from Carnegie, who could do it.

From his earliest days Carnegie was a great reader. Tales of Wallace and Bruce and the poetry of Robert Burns delighted him. When, as a messenger, he could occasionally afford a back seat in the Pittsburgh Theatre and hear some of the plays of Shakespeare, he began to read the works of that great dramatist and they became his favourite literature.

In Pittsburgh at that time there lived a certain Colonel James Anderson, a retired business man who had a good collection of books. Generously he made it known that he would lend these to any boys in the city who cared to read them. Andrew made good use of this kind offer, and spent most of his spare time in reading. For the rest of his life he felt grateful to Colonel Anderson and followed his example by providing large numbers of books for others.

Carnegie's fame as a telegraph operator soon spread. In 1853, at the age of eighteen, he was appointed telegraphist and secretary to Thomas A. Scott, the Pittsburgh Superintendent of the Pennsylvania Railroad Company.

Soon 'Scott's Andy', as he came to be called,

was well known among the railway men, for looking after the telegraph and helping Mr Scott in the office were not his only jobs. Sometimes he was sent out, usually riding in the cab of an engine, to investigate an accident. On these occasions he won the respect of the railway men, for, in spite of his smallness, he showed himself to be as tough as any of them.

The Pennsylvania Railroad had only one track, so that a block on this could paralyse the whole system. One morning Carnegie, still in his 'teens, came to the office and discovered that the whole railway was at a standstill owing to an accident to an express. Mr Scott was nowhere to be found. With scarcely a moment's hesitation, the boy sent telegrams to the drivers of all the trains that were held up, giving them instructions how to proceed. For the next hour and a half he sat at his instrument directing the traffic of the whole railway. A single mistake might have meant, at best, worse confusion, or at worst, a terrible accident.

On another occasion the line was blocked by some derailed coaches. On his own authority Carnegie wired at once: 'Burn the cars.' This was done, and the line was cleared almost immediately. Although this was an expensive cure, it proved less costly than a long delay, and the practice was afterwards regularly adopted.

Scott, who was a shrewd judge of character, realized that his assistant was not an ordinary young man, and he often allowed him to act on his own

responsibility. In 1859 Mr Scott was made Vice-President of the Company. No one was surprised that Andrew Carnegie, then aged twenty-four, should be given his post.

Before this Carnegie had started to make money. One day, when he was sitting in the rear car of a train, watching the rails moving quickly away, a tall, thin man came up to him.

'Excuse me, sir,' the man said, 'the guard has told me that you are an official of the Company.'

Andrew admitted that he was.

'I'm Theodore T. Woodruff, and I have something here which I should like to show you.'

'Yes?' Carnegie inquired, wondering.

'It's the model of a sleeping-car I have invented,' the stranger explained, as he opened his bag and drew out an object wrapped in cloth. 'The seat-and-couch car, I call it.'

In America train journeys often last many days. Before that time the only sleeping accommodation consisted of rough bunks nailed up in freight-cars. These were so uncomfortable that most people preferred to spend the night in their seats. Carnegie at once saw that Woodruff's invention was a great improvement on this. The model was of part of a coach, whose seats, which faced each other, could be converted into comfortable beds. Other berths, hung on chains, could be pulled down from above.

'The idea is just what we want,' Andrew told the delighted inventor. 'The Pennsylvania Railroad Company must have this. I'll see about it as soon as I get back to Pittsburgh.'

Full of enthusiasm, he dashed into Mr Scott's office and explained the idea. Soon sleeping-cars like these were running, not only on the Pennsylvania, but on many other railroads as well.

Out of gratitude to Carnegie, Woodruff offered him an eighth of the shares in the company he formed, and the young man succeeded in borrowing sufficient money to buy them. Soon the shares were bringing in large sums of money as interest.

When the Civil War broke out between the Northern and Southern States, Carnegie was one of the first men in Pittsburgh to offer his services to the former. His old chief, Scott, was made responsible by President Lincoln for the organization of war railway-transport, and he chose Carnegie as his assistant.

In the early days of the war, the Southerners almost succeeded in cutting off Washington, the capital, from the rest of the Northern States. It was Carnegie, at the head of an army of railway men, who repaired the lines damaged by the enemy and thus helped to save the city.

In 1862 Andrew Carnegie decided to take a holiday. For the first time he revisited Scotland and his old friends at Dunfermline. But he did not return to the country of his birth as a poor weaver's son: for now, with his railway salary and the income from his sleeping-car and many other investments, he was receiving nearly \$50,000 a

year—this when he was only twenty-seven years of age.

In 1865, at the age of thirty, Carnegie left the Railroad Company and invested his wealth in iron, setting up firms for the building of iron bridges, rails, locomotives, and so on.

Can you imagine what the world would be like without steel? Practically everything depends upon this most useful of metals—railways, ships, motorcars, machinery, in fact almost everything one can think of. A hundred years ago it was a rare and expensive metal. Most articles that are now made of steel were then made of cast iron, which is brittle and heavy. Railway lines of cast iron, even in those days, when they did not carry really heavy traffic, had to be renewed every few months. They could not have supported the heavy locomotives of modern times.

In 1872 Andrew Carnegie, while on a visit to England, met Sir Henry Bessemer, the inventor. Bessemer took him to his factory and showed him a wonderful contrivance of steel, shaped like a huge pear. Through the top was poured molten iron, and air was blown into the base. A great roar then came from the 'converter', and dazzling flames shot out through the top. After a short time the noise and the flames died down, and the converter was overturned, so that the glowing molten metal could flow into a mould. In this way more steel could be manufactured in half an hour than an old-fashioned steelworks could turn out in a week.

Bessemer's wonderful invention was not received very-gladly in Great Britain, for it was soon discovered that nearly all the iron-ore found in the country contained phosphorus, and so could not be converted into steel by his process. But Carnegie at once saw the great opportunity which this invention would give to America: for he knew that near Lake Superior there was iron-ore in vast quantities that did not contain the harmful phosphorus.

Carnegie returned to Pittsburgh and at once put all his wealth into the building of a great steelworks equipped with Bessemer Converters for the manufacture of steel rails. Cheap steel had come. The United States of America, and not Great Britian, was to lead the world in its production: and Andrew Carnegie was at the head.

During the years that followed, by good management and hard work, Carnegie gradually built up a huge concern. He had a genius for choosing the right kind of men to serve him, and he was kind and considerate to his staff. To his competitors he was fair, but a hard fighter, gaining the advantage over them if it could be done by straight dealing. Soon steel became necessary for the construction of buildings, and Carnegie began to manufacture the girders and beams that form the skeletons of America's skyscrapers.

Soon two other important inventions, by Gilchrist Thomas and Siemens, overcame the difficulty of phosphorus in the manufacture of steel. Carnegie was the first to make use of these inventions in America.

Most summers were spent by Carnegie in travelling in Europe with his mother and a group of friends. He used to drive through Britain, visiting places of beauty in a gay red and black coach with four horses. This smart equipage, with its happy, cheerful travellers, caused many a sensation as it passed along the country roads, with the coach-horn

blowing merrily.

Nor did Carnegie forget the Dunfermline of his birth. In 1881 he visited the ancient town accompanied by his friends and his then aged mother. The news of their approach travelled faster than their coach, however, and when they entered the town they found the buildings decked with flags, and the provost and the town officials in their robes waiting to greet them. After a great celebration and a long procession, Mrs Carnegie laid the foundation stone of the Carnegie Library, the first of several thousand to be given by the generous millionaire, so that people all over the English-speaking world should have an opportunity such as he himself had had, owing to the kindness of Colonel Anderson.

Articles of his which appeared in American and English papers and magazines showed what Carnegie thought about wealth. He said that it was a disgrace for a man to die wealthy. A millionaire should spend enough of his money to reward him for having made it. He should leave

enough, when he died, to keep his widow and daughters in comfort. But what was left apart from this should not be hoarded and handed on to sons, so that they could live in idle luxury: it should be devoted by the millionare, in his own lifetime, to the good of mankind; for if he had had the good fortune to amass these riches, it was his responsibility to see that they were properly bestowed.

The giving away of his vast wealth was as important a duty to Andrew Carnegie as its collection had been. When he retired from the steel business at the age of sixty-five, having sold the great Carnegie Steel Company to John Pierpont Morgan, who made it into the United States Steel Corporation, Carnegie devoted all his time to organized giving. At his beautiful home, Skibo Castle, in Scotland, or at his house in New York, he supervised the giving away of his millions. Carnegie Libraries were set up in all parts of the English-speaking world. Almost any place which asked could have a fine library building, on condition that the local authority would undertake to stock it with books and keep it in repair. Firmly believing that one of the chief causes of unhappiness is ignorance, this was Carnegie's method of encouraging people to improve their education.

Scotland, as we have seen, had a warm place in Carnegie's heart. \$10,000,000 were given to help the Scottish universities. This became the Carnegie Trust, which has helped hundreds of

students and contributed much to learning. As a mark of gratitude and honour, St. Andrew's

University appointed him Lord Rector.

But Scotland was not the only country to benefit. A vast sum was given to found the Carnegie Institute in Washington, U.S.A., 'to encourage in the broadest and most liberal manner investigation, research, and discovery, and the application of knowledge to the improvement of mankind'. Since its foundation, the Institute has carried on tireless research in all branches of science—biology, physics, astronomy, and so on. One result of its activities was the Mount Wilson Observatory, with its great Hooker telescope, which has done much to increase man's knowledge of the heavens. To the building of this observatory Carnegie contributed \$10,000,000.

As the millionaire grew old, he began to fear that he might fail in disposing of his still great wealth; so in 1914 he set up in the United States a Corporation of Trustees, to which he entrusted \$125,000,000, and another in Great Britain, to which he gave \$10,000,000. The Trustees were to devote the interest on these vast sums to the advancement of

learning and the good of humanity.

It is impossible here to give a complete list of Carnegie's gifts, and we have mentioned only the largest of them. When he was still a young man he had declared that he would give away all his great fortune. Many people sneered at this boast. His only answer was 'Wait and see!' When he died in 1919, the newspapers calculated how much money he would leave. To the astonishment of everyone, it was disclosed that he had left only sufficient to provide for his wife and daughter. Andrew Carnegie had kept his promise by giving away, for the good of humanity, over \$300,000,000.

So ended the long life of the millionaire, who thought it a disgrace to die rich: a man admired and loved by hosts of friends on both sides of the Atlantic. Millions still unborn will owe him thanks for his wise generosity.

JOHN D. ROCKEFELLER

One of the world's richest men and one of its most generous givers was born in 1839 on a small farm near Richford in New York State. The neighbours did not think very much of John D. Rockefeller when he was a boy, for they considered him to be slow and perhaps a little dull. But how mistaken they were! Perhaps he took a little longer than some people to start a job, but that was because he was thinking out the best way of doing it. Once started he carried it out better than most others would have done.

The Rockefeller home was a poor place, for the father was not well-off at that time, and young John had to earn money while he was still at school. Even when he was very young he took interest in

business matters, and he used to keep a little note-book—he called it Ledger A—in which he entered every cent he earned and spent.

One of his earliest business deals was with some turkeys, when he was seven or eight years old. He had been given some eggs, which he carefully hatched, and then fed the young turkeys with what was not wanted in the dairy. When they were fat he sold them and made a large entry in his book.

The Rockefeller family were happy, in spite of being poor; but their mother did not let the children do what they liked. For example, they were forbidden to go skating at night. Once, when there was a full moon, they crept out with their skates and were just beginning to enjoy themselves on the ice, when they heard a cry of distress. After searching, they discovered that a neighbour had fallen through a hole and was in danger of drowning. With the help of a pole they pulled him to safety and then hurried home, so full of importance that they decided to risk the consequences of their disobedience and tell their parents what heroes they were. But Mrs Rockefeller believed in discipline. Out came the switch, and they were made to suffer for their sins.

When John was sixteen he had to leave High School and prepare to earn a living, for his parents could not afford to send him to College. Instead, they sent him to a commercial school, where he learnt book-keeping and business methods. After several months there he tried to find a job.

For days John tramped the streets of Cleveland, calling at office after office. But no one wanted a boy. At last he entered a warehouse by the docks and, to his delight, the man at the desk told him to call again in the afternoon.

Next day John D. Rockefeller, aged sixteen, began work as assistant book-keeper to Messrs Hewitt & Tuttle, Merchants. It was not till three months had passed that he received his first salary, \$50. Fortunately for him his father and mother were now living in Cleveland, and he could lodge at home. For the next year he was paid \$25 a month.

All this time the friendly book-keeper was teaching Rockefeller the business. He learnt it so well that at the end of the year, when the book-keeper retired, Rockefeller succeeded him at \$500 a year—a good salary for a boy of seventeen.

Messrs Hewitt & Tuttle was a small firm, dealing with many kinds of business. Young Rockefeller saw everything that was going on and learnt much about business methods. As he showed himself to be clever, his employers trusted him with more responsible jobs. One of these was to examine all the bills that came in, and to make sure they were correct before they were paid. By doing this conscientiously, John saved the firm a great deal of money.

After another year had passed Rockefeller considered that he was fit to work for himself. He told his employers that he was thinking of leaving them;

but he had become so useful to them that they did not want him to go. One day he was called to his master's office.

'We're thinking of raising your pay to \$700 a year, John, if you'll stay with us,' the manager

told him.

Rockefeller said he would think it over and let them know later. He did not want to stay, for he would much rather work for himself. But, on the other hand, \$700 . . .

A few days later he told his employers that he wanted \$800, and that if they did not pay it him, he would leave. Messrs Hewitt & Tuttle came to the conclusion that they could not pay this

wage.

Meanwhile Rockefeller had met a young Englishman called M. B. Clark, who was in search of a partner with whom to start a small business. Each partner was to put \$2,000 into the firm, and with this money they were to buy and sell goods at a profit.

This was the very opportunity for which Rockefeller was looking. There were only two difficulties —where was the \$2,000 to come from, and would Clark have a boy of eighteen as a partner? John went straight to his father and explained the plan.

'Well, son,' Mr Rockefeller told him, 'as you know, I have done well since we came to Cleveland. I've saved some money, and I intend to give each of you youngsters a thousand dollars when you are twenty-one.'

64

'I've saved \$800, and if you could let me have that thousand now, and two hundred besides——'

The older man considered a moment, then: 'Son, you may have it. But John,' he continued, after a pause, looking at his son acutely, the interest will be ten per cent till you are twenty-one. and then the \$200 will have to be repaid.' John jumped at the chance and hastened to settle things with Mr Clark.

The result of the interview was that the firm of Clark & Rockefeller was started. Clark attended to the buying and selling, and his young partner looking after the accounts. Thus at eighteen this rather slow lad had become a partner in a firm.

Business went well for the young men, and soon they began to trade in large quantities of goods. To pay for these, they required more money than they had in hand. The question was: how were they to get this money? Who would trust them with the \$2,000 which they needed? Who would be willing to risk his money in the hands of this small firm, in the hope that the young men could buy goods with the \$2,000 and sell them at sufficient profit to pay 10 per cent—that is \$200—each year for the loan and then, later, pay it back again? Clark and Rockefeller asked themselves if they could do this and still make a profit for themselves.

At last John went to one of the banks and asked to see the president, a kind old gentleman he had known for years.

'How much do you want?' asked the banker, when he heard the story.

'Two thousand dollars,' Rockefeller replied hesitantly, feeling that it was a great deal of money.

'All right, Mr Rockefeller, you may have it.

Your word is good enough for me.'

The young business man returned to his office feeling very important. Business improved quickly and soon the new firm became quite well known. Rockefeller travelled through the country to bring his firm to the notice of possible customers, and

orders poured in.

That loan was the second of many which John D. Rockefeller negotiated. In course of time he borrowed millions of dollars, with the aid of which he became the richest man in the world. He had no difficulty in making people trust him, for he always conducted his business honestly, taking no unnecessary risks with other people's

money.

But John Rockefeller had other interests besides getting money. From his young days his parents had taught him that one must give as well as get, and he had always contributed to charity the little that he could afford. About the time he entered into partnership with Mr Clark he was elected a trustee of the church he attended. This church had been built with borrowed money, and the man who had lent the money was threatening to take the building if the loan were not repaid.

One Sunday the minister announced from the

pulpit that if \$2,000 were not obtained in a short while the people would lose the church. Rockefeller took the matter in hand and stood at the door of the church with a note-book, stopping everyone until he had raised the money.

Rockefeller did not become famous as a merchant, however. At that time the winter evenings must have seemed long and tedious for such families as his, for, although the large towns were already lit by gas, the country homes had to be content with dim, smoky tallow candles. In those days few people had oil-lamps, for the fuel for them was very scarce. Then news came to America that an Englishman called Young had discovered how to distil lamp oil from mineral oil, that is, petroleum.

Petroleum had been known to man from earliest times, but no good use had been found for it. On hearing of Young's discovery, Americans began to realize that this oil from the earth might solve the lighting problem for the country districts, and at the same time make a fortune for the lucky and enterprising man who could find and refine it. The Indians had found mineral oil in Pennsylvania, and so white men decided to try their luck.

Various attempts were made to strike oil, but it was not until 1859 that a Colonel Drake, by a new method, successfully bored a well in what was later called Oil Creek in Pennsylvania. When the news spread that Drake was getting thirty-five gallons an hour from his well, people flocked to the district, and soon an oil rush started. Camps

sprang up, and soon the whole valley was covered with boring-towers, or derricks. The thick, dirty mineral oil was taken from the earth and carried in tubs to refineries. Paraffin, or kerosene, was extracted from it by the process known as distillation.

Oil-boring was a risky way of seeking a fortune. Often a well, bored at great expense, ceased flowing after only a short while. Again, there was the danger that the well might give too much oil and become a gusher, as they call it in the oil-fields. In such a case, precious mineral oil shoots hundreds of feet into the air. Millions of gallons can be wasted before it is brought under control. There is an ever-present danger of fire, and many of the early wells were burnt out. Nowadays there is a quick way of bringing a gusher under control.

Rockefeller was twenty years old when Colonel Drake made his strike, and from that time read all he could about the new industry. Rockefeller and his partner joined with some other men to form an oil-boring company. They carried on the business of Clark & Rockefeller at the same time. In 1865 Rockefeller left Clark and, with a Mr Andrews, took over the oil side of the

business.

Little capital was needed to start boring for oil. Such great numbers of people rushed into the business that oil became too cheap to pay the cost of production. The greatest difficulty was to carry oil cheaply to other parts of the country,

where it was to be used. The oil-fields were producing more than could be used near by, and there was no economical way of taking the surplus to other parts of the country, which wanted the oil badly.

John D. Rockefeller overcame these difficulties. He persuaded a number of other oil-producers to join with him to form the Standard Oil Company. Hundreds of miles of pipe-line were laid down, so that oil could be pumped from the wells to the refineries, which were set up in different parts of the country, and from them to the ports. The result was that the oil-wells supplied, not only the districts around them, but the whole of America and, later, the whole of the world. It was because he mastered the difficulties of distributing oil that Rockefeller and his company out-distanced all the other concerns. Special steamers—tankers—were built to cross the seas, and in due course Rockefeller's road-tankers distributed the precious liquid in all the countries of the world. Special methods of transport were devised even for the wilds of China. With the coming of paraffin, the tallow candle disappeared and was replaced in country districts by the bright and cheerful oil-lamp or the paraffin wax candle.

Oil was first produced for paraffin, but many more uses were found for it, for burning-oil is only one of many petroleum products. The invention of the motor-engine made petrol the most useful of all the products of crude oil. There are also

lubricating oils, medicinal oils, and petroleum jelly (vaseline). When all these products have been taken from petroleum, it is still possible to use what is left for repairing the roads, or for making carbon parts for electrical machines.

Rockefeller at the head of the great Standard Oil Company took advantage of all these opportunities. Soon the products of his firm were selling all over the world, and the poor farm lad, who had become an office boy at a few cents a day, became the richest millionaire. It is said that he made over two

hundred million pounds.

In his lifetime he gave away £150,000,000. A great deal of this went towards the establishment of the Rockefeller Foundation in 1913 'to promote the well-being of mankind throughout the world'. This has done splendid work by founding colleges which carry out research into the causes and cure of disease, and the rearing of children to become happy and healthy men and women. The Rockefeller Institution set up by the Foundation carries out other scientific research.

Until he was fifty-six Rockefeller worked very hard, for however great an opportunity presents itself, a fortune such as his can only be made by tireless energy. At that age he retired from the oil business and devoted himself just as energetically to giving away his great fortune. It can be no easy task to dispose of \$600,000,000 in such a way that the money is used to the best possible purpose. To Rockefeller, as to Andrew Carnegie, the bestowing

of his fortune was every bit as serious a duty as had been the making of it.

Rockefeller's leisure time was spent in travel, reading, and in his favourite hobby, landscape gardening on a large scale. His extensive estate was so planned that the fine scenery could be seen to the best advantage; and to complete the picture he even re-planted woods of full-grown trees brought from elsewhere.

John D., as most people called him, died in 1937, aged ninety-eight. What changes he had seen in his long life! Perhaps the greatest of them all was the development of the petrol engine, which owed so much to him.

LIVING MAMES

Stout paper binding 2s. Limp cloth 2s. 9d.

SIX PHYSICISTS by John Walton GALILEO, NEWTON, DAVY, FARADAY, KELVIN, MME CURIE.

PIONEERS OF MEDICINE by John Walton and H. McNicol HARVEY, JENNER, PASTEUR, LISTER, OSLER, ROSS

SEVEN BIOLOGISTS

by T. H. Savory, F. E. Joselin and John Walton ARISTOTLE, LINNAEUS, LAMARCK, CUVIER MENDEL, DARWIN, PAVLOV.

SEVEN INVENTORS by H. McNicol ARKWRIGHT, WEDGWOOD, GOODYEAR, THE BROTHERS WRIGHT EDISON, MARCONI.

SEVEN CIVIL ENGINEERS by John Walton SMEATON, McADAM, RENNIE. STEPHENSON, I. K. BRUNEL, DE LESSEPS BENJAMIN BAKER.

SIX MEN OF BUSINESS by H. McNicol ROTHSCHILD, REUTER, RHODES, CADBURY, CARNEGIE. ROCKEFELLER.

MAKERS OF THE U.S.A. by John Walton Franklin, Washington, Jefferson, Jackson, Lincoln, Lee

SIX EXPLORERS by John Walton Marco Polo, Columbus, Cook, Sturt, Livingstone, Scott

SIX MORE EXPLORERS by John Walton VASCO DA GAMA, FERDINAND MAGELLAN, JACQUES CARTIER, MUNGO PARK, RICHARD BURTON, ROALD AMUNDSEN.

SIX REFORMERS by John Walton Wilberforce, Peel, Elizabeth fry, Shaftesbury, Florence Nightingale, Barnardo.

SIX GOOD SAMARITANS by G. F. Lamb HOWARD, SIR WILLIAM HILLARY, FATHER DAMIEN. NANSEN GRENFELL. ALBERT SCHWEITZER.

SIX MISSIONARIES IN AFRICA
by Cecil Northcott and Joyce Reason
MOFFAT, LIVINGSTONE, STEWART. MACKAY MARY SLESSOR ALBERT
COOK.

All prices are subject to change without notice

OXFORD UNIVERSITY PRESS